

REMARKS

Claims 1-20 are pending in this application. By this Amendment, claims 1 and 4 are amended, and claims 14-20 are added.

I. 35 U.S.C. §112 Rejection

Claim 4 is rejected under 35 U.S.C. §112, second paragraph, as being indefinite in regard to the term "the channel region". By this Amendment, claim 4 has been amended to clarify the term. Accordingly, the rejection is moot.

II. 35 U.S.C. §§102 and 103 Rejections

Claims 1-7 and 9-13 are rejected under 35 U.S.C. §102(b) over Yamazaki et al. (U.S. Patent No. 5,858,823); and claim 8 is rejected under 35 U.S.C. §103(a) over Yamazaki in view of a 2001 publication by Ishihara et al. The rejections are respectfully traversed.

Yamazaki fails to disclose a thin film transistor circuit with a first-conductivity-type thin film transistor and a second-conductivity-type thin film transistor formed using single crystal grains, the single crystal grains being formed substantially centered on each of a plurality of pre-positioned starting-point portions disposed on an insulating surface of a substrate, as recited in independent claim 1.

Yamazaki fails to disclose all of the features recited in independent claim 1 because Yamazaki's monodomain regions 121 to 123 are not single crystal gains. Yamazaki discloses the formation of monodomain regions 121 to 123 which are characterized to be similar to "single crystal silicon." See Yamazaki at col. 14, lines 5-7. Yamazaki's monodomain regions cannot be single crystal grains because they are expressly disclosed to be something different, i.e., to be "like single crystal silicon" (see Yamazaki at col. 14, lines 5-11). Furthermore, Yamazaki's monodomain regions are the product of a random process, and not the result of pre-positioned starting-point portions. As disclosed in Yamazaki at Fig. 8B, amorphous silicon film 12 is irradiated with laser light to cause the entire surface of the amorphous

silicon film to crystallize, resulting in the random formation of monodomain regions. See Yamazaki at col. 13, line 52 to col. 14, line 4. Yamazaki thus does not disclose, suggest, or teach the formation of single crystal grains, or that the formation of monodomain regions can be controlled with pre-positioned starting-point portions.

In regard to claim 8, the modification of Yamazaki with Ishihara would not result in the claimed invention. As discussed above, Yamazaki does not disclose single crystal grains. Furthermore, Ishihara regards the use of small unmolten regions that "seed" the growth of single crystal grains. A person of ordinary skill in the art would not modify the Yamazaki monodomain formation process to use the single crystal grain formation process described in Ishihara. Yamazaki teaches a laser irradiation process in which "the entire surface of the amorphous silicon film" is crystallized to form monodomain regions. See Yamazaki at col. 14, lines 1-3 (emphasis added). Ishihara teaches a process in which the silicon layer is not completely melted, leaving a small unmelted "seed" region to form single crystal grains. See Ishihara at Abstract. Accordingly, a person of ordinary skill in the art would not modify Yamazaki because Yamazaki requires melting of an entire amorphous silicon layer while Ishihara teaches only a partial melting of a silicon layer, and because these references are directed at the formation of different things.

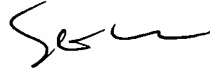
In view of the foregoing, Yamazaki and Yamazaki in view of Ishihara fail to disclose all of the features recited in independent claim 1, as well as the additional features recited in the dependent claims thereof. It is respectfully requested that the rejections be withdrawn.

III. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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